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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,681	08/01/2000	Mark R. Hinds	13415	7498

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EXAMINER

PHAN, HANH

ART UNIT PAPER NUMBER

2633

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/630,681

Applicant(s)

HINDS ET AL.

Examiner

Hanh Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 5, 6 and 8-19 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 4 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. Figures 1, 2A, 2B, 3A, 3B and 3C should be designated by a legend such as -- Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 6, 8, 10, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishimura et al (US Patent No. 5,440,418) cited by applicant.

Regarding claims 1, 8 and 13, referring to figures 1 and 2, Ishimura discloses in an optical system comprising a plurality of interconnected optical components (i.e., optical repeaters 1-3, Figs. 1 and 2), a method of verifying if a fiber connection between a first optical component (i.e., optical repeater 1) and a second optical component (i.e., optical repeater 2) is correct, the method comprising:

storing a predefined connection model in a processing agent (i.e., control circuit 14, control command interface 15 and telecommunication management Network TMN, col. 2, lines 39-46);

generating a port identification message (i.e., management information) at the first optical component;

transmitting the port identification message from the first optical component to the second optical component over a dedicated communications channel running parallel to the fiber connection (Fig. 1);

conveying the port identification message (i.e., management information) received at the second optical component and information identifying the second optical component to the processing agent;

checking the port identification message and information identifying the second optical component against the predefined connection model stored in the processing agent to determine if the connection is correct; and

indicating a correct connection or a misconnection (from col. 1, line 60 to col. 4, line 46).

Regarding claims 3 and 10, Ishimura further teaches the dedicated communications channel running parallel to the fiber connection is a distinct wavelength channel inside the fiber connection (col. 2, lines 47-51).

Regarding claim 6, Ishimura further teaches the processing agent is resident on the first or second optical component (Fig. 1).

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Regarding claim 11, Ishimura further teaches the transmitter (i.e., E/O 17, Fig. 1) at the first optical component comprises an optical source with a WDM coupler (i.e., WDM 8, Fig. 1) and the receiver at the second optical component comprises a WDM filter with a photodetector.

4. Claims 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Sullivan et al (US Patent No. 5,859,716) cited by applicant.

Regarding claim 14, referring to figures 1 and 2, O'Sullivan discloses in an optical system comprising a plurality of interconnected optical components, a method of verifying if a fiber connection between a first optical component and a second optical component is correct, the method comprising:

- storing a predefined connection model in a processing agent;
- adding a dither to an optical signal to be transmitted from the first optical component to the second optical component to generate a dithered optical signal;
- transmitting the dithered optical signal from the first optical component to the second optical component over the fiber connection;
- receiving the dithered optical signal at the second optical component;
- detecting the dither contained in the dithered optical signal received at the second optical component;
- conveying the dither detected at the second optical component and information identifying the second optical component to the processing agent;

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checking the dither and information identifying the second optical component against the predefined connection model stored in the processing agent to determine if the connection is correct; and

indicating a correct connection or a misconnection (col. 2, lines 37-55, col. 4, lines 24-67 and col. 5, lines 1-6).

Regarding claim 15, O'Sullivan further teaches the dither is cancelled from the dithered optical signal at the second optical component using destructive interference (Figs. 1 and 2).

Regarding claim 16, O'Sullivan further teaches destructive interference is carried out using a low-loss, low attenuation device (Figs. 1 and 2).

Regarding claim 17, O'Sullivan further teaches the destructive interference is carried out using an optical amplifier (Figs. 1 and 2).

Regarding claim 18, O'Sullivan further teaches the processing agent is control software located remotely from the first and second optical components (Figs. 1 and 2).

Regarding claim 19, O'Sullivan further teaches the processing agent is connected to the first and second optical components via electrical backplane connections (Figs. 1 and 2).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 5, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishimura et al (US Patent No. 5,440,418 cited by applicant) in view of Liu (US Patent No. 6,005,694 cited by applicant).

Regarding claims 2, 5, 9 and 12, Ishimura teaches all the aspects of the claimed invention as set forth in the rejection to claims 1 and 8 above except fails to teach the dedicated communications channel running parallel to the fiber connection is an optical fiber link separate from the fiber connection. However, Liu teaches the dedicated communications channel running parallel to the fiber connection is an optical fiber link separate from the fiber connection (Figs. 1 and 2, col. 4, lines 64-67, col. 5, lines 1-18, col. 6, lines 1-65 and col. 10, lines 48-64). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the dedicated communications channel running parallel to the fiber connection is an optical fiber link separate from the fiber connection as taught by Liu in the system of Ishimura. One of ordinary skill in the art would have been motivated to do this since Liu suggests in column 4, lines 64-67, col. 5, lines 1-18, col. 6, lines 1-65 and col. 10, lines 48-64 that using such a dedicated communications channel running parallel to the fiber connection is an optical fiber link separate from the fiber connection has advantage of allowing the management signal are distinguished from the data signal and simultaneously avoiding the interference between the signals.

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***Allowable Subject Matter***

7. Claims 4 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

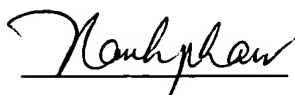
Barry et al (US Patent No. 6,433,903) discloses optical management channel for wavelength division multiplexed system.

Czarnocha et al (US Patent No. 6,504,630) discloses automatic power shut down

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (703)306-5840.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (703)305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.



Hanh Phan

12/10/2003